SEPTEMBER 1947

FIREMEN

FIFTY-FIRST YEAR • NATIONAL FIRE PROTECTION ASSOCIATION

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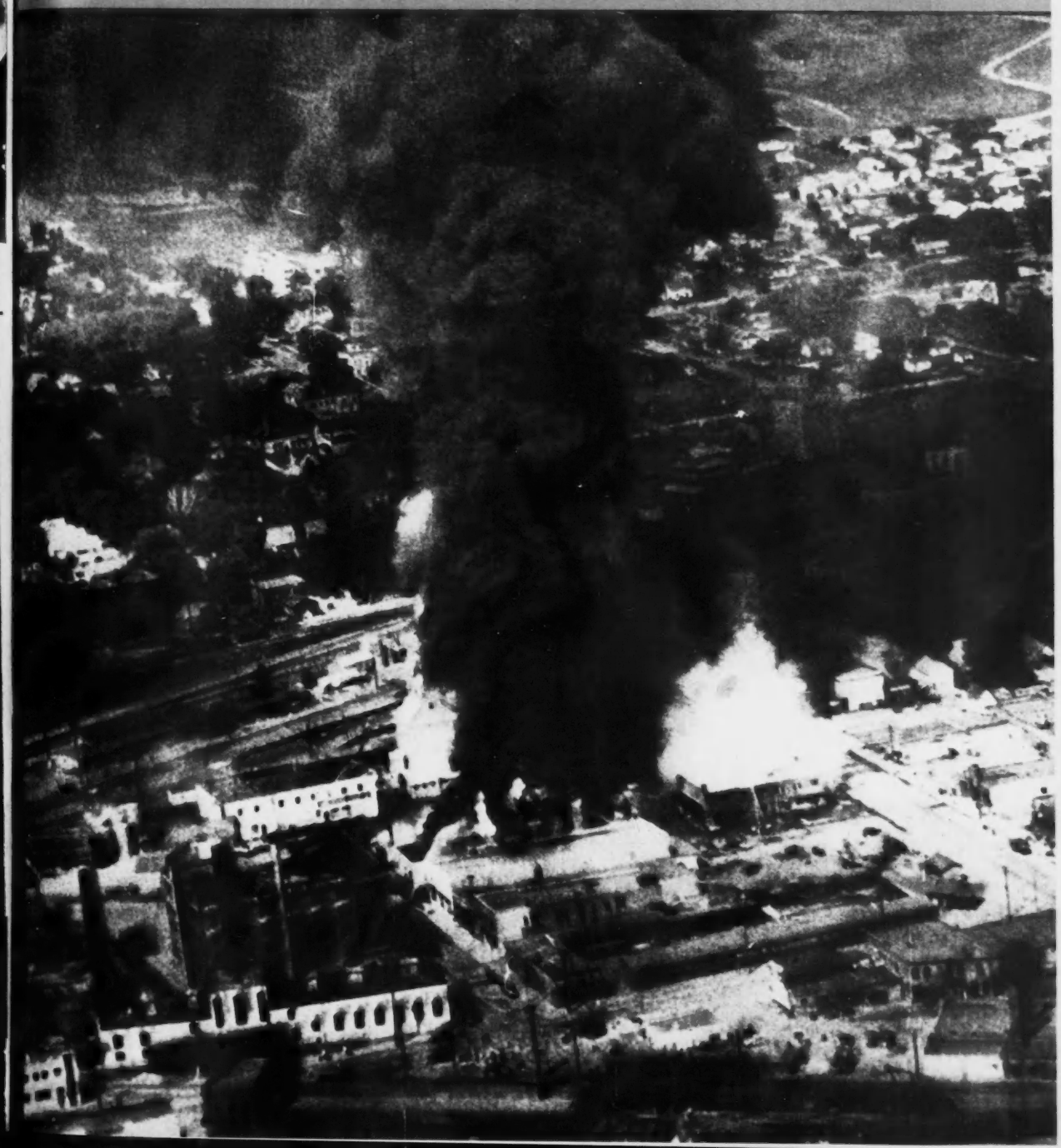

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The Darley Hi-Lift is a turbine driven centrifugal pump, not to be confused with jet devices, which cannot equal the Hi-Lift for VOLUME of water delivered. Before you buy check and compare VOLUME.

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" . . . if it was not for the HI-LIFT the bridge would have gone and they could not let trains pass for weeks."

CHIEF BRIDGES, KENT, WASH.

CITY OF KENT
WASHINGTON

May 14, 1946.

W. S. Darley & Co.
Chicago 12, Illinois

Gentlemen:

May 11th, we had a fire on a Milwaukee Railroad bridge, 1,000 feet long. The trestle was constructed of heavy timbers and well creosoted. The river was near, and the water 35 feet down from the bank, and fifty feet away. We tossed in our Hi-Lift Suction Booster, and pumped water for two hours steady and saved the 1,000-foot trestle and bridge across the river. The Milwaukee office at Seattle called in four other fire departments and all they could do was look at the fire fighting that was being done by our department because we were the only ones that owned a Champion Hi-Lift Suction Booster. The General Manager, the Superintendent and all the high officials of the Milwaukee Railroad were at this fire and they sure were interested to see that little pump throw so much water. If it hadn't been for the Hi-Lift the bridge would have gone and they could not let trains pass for weeks. Once more we made the Seattle papers on the front page with your Champion Hi-Lift. They replaced three pilings and the trains resumed going over the bridge. There was smoke going up in the sky for 200 feet and flames the same.

Yours truly,

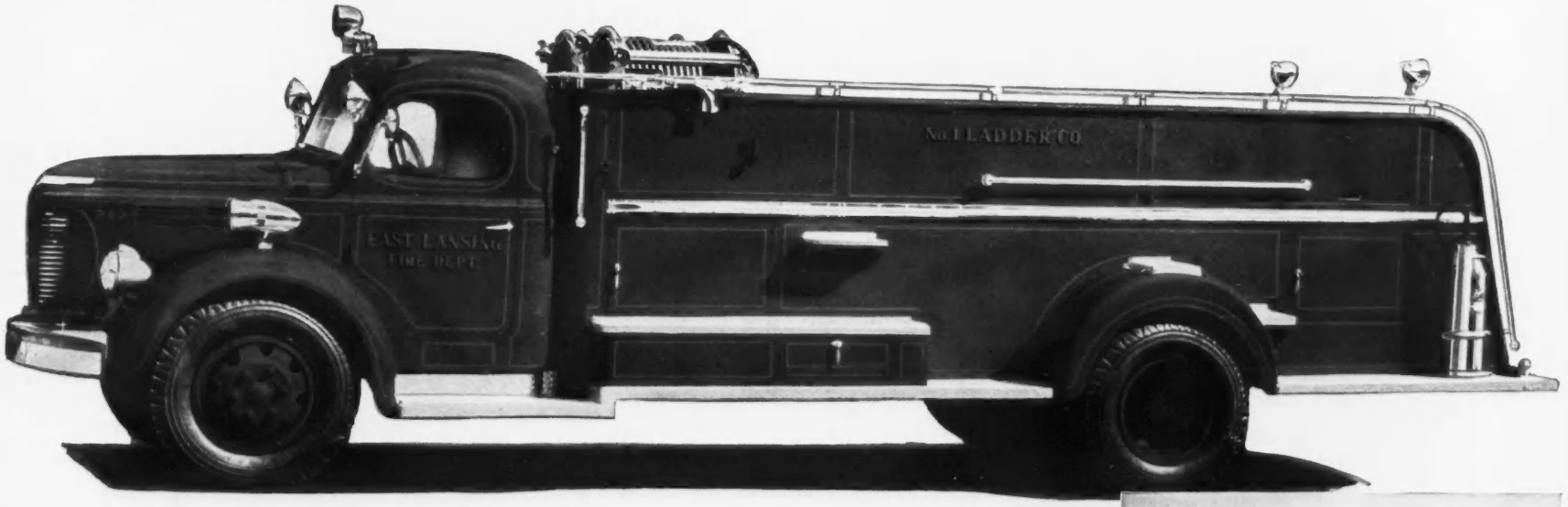
Chas. Bridges, Fire Chief.

W. S. DARLEY & CO.

ESTABLISHED 1908
CHICAGO 12, ILL.

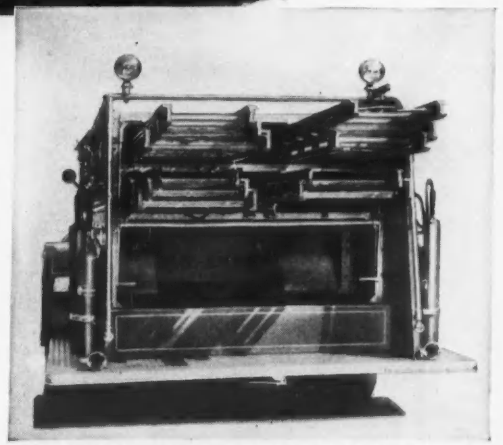
ANNOUNCING

The new FMC high-pressure fog and service truck



This double-duty unit combines high-pressure fog and ladders *in one truck.*

Mounts on any standard 2- or 3-ton chassis. From its big 300-gallon water tank, the patented Bean pump provides 60 g.p.m. at 850 lbs. pressure. You get two high-pressure hose lines, at 30 gallons each. You also get *four sets* of aluminum extension ladders that reach from 15 to 45 feet. This new FMC unit is completely equipped for *fast* fire fighting and ladder work.



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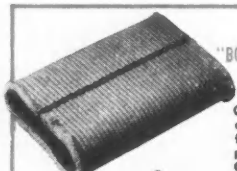
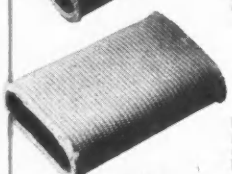


BWH "BOSTON FIRE JACKET" HOSE
Double Jacket

Circular woven jacket of high tensile yarns for maximum wear and pressure resistance. Our highest quality municipal fire hose.



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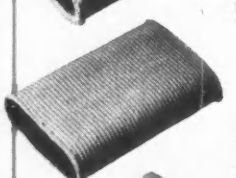
Built to withstand high pressure. Dependably rugged, yet easy to handle. Exceptionally fine value.



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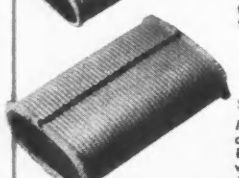

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Single or Double Jacket

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What starts as a small blaze often becomes a 3-alarmer if hose doesn't get into action fast. And that's why easy-to-handle **BWH** Fire Hose is preferred by many big city fire departments.

The huskiness of **BWH** Hose is also a valuable attribute. A long-aging rubber tube is combined with a strong circular-woven jacket in a design originated by **BWH** engineers 69 years ago—acknowledged by experts to be the most efficient type of hose to "stand the gaff" under severe conditions.

Municipalities will now find **BWH** Fire Hose available through the General Detroit Corporation and its subsidiary, the General Pacific Corporation, with branches and warehouses in almost every section of the United States. Call your nearby "General" representative next time your city needs fire hose . . . look for the "General" trade mark in the classified section of your phone book.

NOW! *Distributors of famous*

BOSTON WOVEN HOSE AND RUBBER CO.

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Firemen

Volume 14 Number 9

WARREN Y. KIMBALL, EDITOR
ANNE BAILEY KELLER, ASSOCIATE EDITOR
CHARLES S. MORGAN, ADVERTISING MANAGER

Published monthly for the fire service members of the

NATIONAL FIRE PROTECTION ASSOCIATION

A VOLUNTARY NON-PROFIT ORGANIZATION
60 BATTERYMARCH ST., BOSTON 10, MASS.

PERCY BUGBEE, GENERAL MANAGER
ROBERT S. MOULTON, TECHNICAL SECRETARY
HORATIO BOND, CHIEF ENGINEER

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THE NFPA Department of Fire Record estimates that during 1946 there were close to 600,000 building fires in the United States. This figure is based on reports submitted by 473 U. S. cities in which there were 4.27 building fires per 1,000 population, or, roughly, one building fire per 250 persons, nation-wide. On an average, then, a town of 5,000 population would experience slightly more than twenty building fires per year. Any fire in or on a building, except those burning in their allotted places (stoves, lamps, etc.) falls into the building fire group. Fires involving chimneys, roofs, and awnings would be included.

Many persons not directly connected with the fire service may not appreciate the fact that there are many fires not involving buildings. Roughly speaking, the apparatus rolls close to twice for outside fires such as those in grass, rubbish, automobiles, etc., each time there is a call for a building fire. There were more than a million such outside fires in the United States during 1946, based on the reports of 500 cities.

While it is difficult to give an exact breakdown of the million-odd non-building fires, because figures from many states are incomplete or unavailable, the average fireman does not have to be told that grass, rubbish, and brush fires are the chief troublemakers. These amount to over 700,000 fires a year and alone exceed the number of building fires. Firemen are also familiar with the frequency of automobile fires (many of them small) of which approximately 200,000 occurred last year. Forest service experts estimate that there may be 200,000 fires in forests or woodlands during any one year. As forest areas are very sparsely inhabited, direct population ratios will mean very little but the number of such fires per 1,000 acres may be impressive.

Besides the above fires, there are many others not involving buildings, including fires on railroad property, ships and boats, aircraft, trolley cars, and fire involving outside power facilities, which, if added to the estimate would further swell the total. This would lead to the conclusion that a total as high as 1,700,000 fires in 1946 is not an unreasonable estimate.

As there is no way to determine how many fires occur annually where no alarm is given and for which no report is made, the considerable number of such fires has not been included in the 1,700,000 total. An extreme case is presented by a New England shoddy mill which averages seven fires a day, all quickly controlled by employees. If the total number of such unreported building fires were known, the estimated 600,000 could quite probably be doubled. The same can be said for thousands of grass and brush fires which are insignificant and remain unreported only because the people concerned had the foresight to have first aid extinguishing equipment on hand.

AMONG the large fires of the summer was this one at Minot, N. D., (cover photo *Press Assn.*) which destroyed two bulk oil storage plants with a loss of four lives and destroyed or damaged seven business establishments with loss totaling $500,000. The four killed were local residents enveloped by flaming gasoline as explosions followed completion of gasoline loading operations at a bulk distributing plant. Nine storage tanks at this plant and seven at an adjoining oil plant were involved. Also destroyed or damaged were an oil warehouse, three creameries a grocery, cafe, grain elevator, and a machinery company.

Press Association

Fires of this nature indicate the importance of proper zoning to restrict serious hazards from congested districts. It is said that the oil plants will be rebuilt outside the city. For more than thirty years the NFPA through its Flammable Liquids Ordinance (*National Fire Codes, Volume I*) has presented recommended safeguards for proper storage of flammable liquids intended to prevent such disasters.

1947 FIRE PREVENTION PROGRAM

"You Caused 1,700,000 Fires Last Year"

FIREMEN'S Fire Prevention Week Message

Fire Prevention Week

Fire Prevention Week has been proclaimed in Canada and the United States for October 5-11 this year. The serious increases in fire losses since World War II makes Fire Prevention Week of paramount importance. The public has been aroused by the great fires and fire disasters of the last few years and awaits the leadership of the fire service for an effective community fire prevention campaign.

All fire departments holding membership in NFPA have received sample Fire Prevention Week literature designed to help put across the fire prevention message. These include the poster shown above, inspection blank, fire quiz, folders for home distribution, the Fire Prevention Week Handbook, and a coloring book for children. Orders received later than September 26, cannot be filled.

Store Window a Fire Prevention Ally

by Ernest A. Dench

ON a par with the press agent's classic of the actress and her "lost" jewels is the alleged true yarn cited by a town retailer. It appeared that the red lighting effects in his window display were so realistic that someone sent in a call to the local fire department.

Nevertheless, it testifies to the dramatic possibilities of the store window. For years retailers have been generously granting their valuable space to fire prevention. Some have had a direct eye to business, by displaying fire extinguishers, flashlights, and such merchandise; other stores have cooperated as a community gesture.

There are, of course, a number of phases of fire prevention — in the home, in the field, in the factory, in the forest — all fairly competing for attention, and often surmounted by staging a general type of display. Other stores prefer instead to tackle a specific phase of the subject. Location, too, has a good deal to do with the choice of theme. The big city store is, for instance, more likely to visualize the hazards of backyards, cellars, and attics stored with flammable junk. Or it may be a simple kitchen scene, dramatizing the necessity of keeping matches out of children's reach.

In every town and city there are the key individuals and organizations to approach. From an uncommercial standpoint, the leaders (though not necessarily in this order) are the local newspaper, the chamber of commerce, the bank, and the public utility. Some, if not all, of these community enterprises possess show window facilities which are utilized free of charge by local manufacturers and service institutions to advertise their respective businesses.

The first move is to make a survey of the existing local window display mediums and then to approach their owners.

One strictly commercial institution that really belongs to the first group is the department store. The department store regards it as a civic duty to foster any desirable form of public education and will spend lavishly of time, money, and effort.

Another front-rank cooperator is the local lumber or building supply house.

Then follow the stores that will cooperate solely on commercial grounds — because they have fire prevention or fire fighting merchandise to sell. While you will get a good display, its weakness is that the public will realize that such a retailer has an axe to grind.

The ideal type of educational display to be installed by the first community group is exemplified by the Pomona, Calif., Chamber of Commerce. The highlight of the display was a model of a typical fire lookout tower in use in southern California. The exhibit was supported with posters and explanatory signs stressing the importance of care in using the forests.

A friend of ours is down on model room exhibits. To him, most of them lack the livable element, which could be supplied by human interest touches such as a person posed in some natural

act, or an indication that the room had been occupied. The Los Angeles County Forestry Department, which had the exhibit on display in Pomona for three weeks, wisely included human interest touches with doll and toy figures. The warden was shown on duty in the tower, while his cabin near the base had an owl perched on the chimney. Two horses were stabled in a shed near the cabin.

In one display by a western automobile accessory chain and duplicated in all of its stores, the following handy gadgets were on display:

A type of ash tray to fasten to the car dashboard to hold smoldering cigarette and cigar butts, instead of discarding them at random about the countryside.

An electric cigar or cigarette lighter on the car to dispense with matches. The petrol lighter to avoid the use of matches in the forest.

Campfire protection with a gasoline stove — sold, too, on the idea of the labor and time saved over the gathering of wood and nursing a fire in bad weather.

A flashlight to use whenever possible instead of an oil lantern or candle.

The keynote of the window was the show card recommendation to "Help Prevent Forest Fires by Using These Accessories."

Another commercial display, this time by a Vancouver hardware firm, was of especial interest to British Columbia lumbermen. Although it dealt with technical operations, it was handled in a semi-technical way so that it would also interest the general public.

The main feature of the trim was a miniature replica of the slack line and swing boom system as in active operation. Against the background was a large photograph of a timber slashing area. At either rear side was a smaller photograph of a blazing forest. Signs dwelt on the importance of taking precautions when in the woods. Completing the educational exhibit was an hygrometer, and the important role played by this delicate instrument in measuring humidity was pointed out.

In arranging exhibits for window display work, a minimum of text and a maximum of pictures is recommended. Window display is a pictorial medium. Detailed explanations are best left to circulars and pamphlets for leisurely reading.

Fire Prevention Report

HADDONFIELD, N. J. — The following report by Lieut. Russell M. Hunt, of the Haddonfield Fire Department, covering their 1946 Fire Prevention Week program, shows what can be done by a small community to make Fire Prevention Week a high spot in the volunteer fire company's annual program.

Inspection

Chief Jonathan Cox and Borough Fire Marshal William H. Haley conduct special inspections throughout the year and regular inspections semi-annually. During Fire Prevention Week, inspections were made in 5 factories, 101 stores, 23 public and school buildings, 5 offices, 22 service stations, and 10 churches. At this time, defects are noted and brought to the attention of the offender.

School Activities

During Fire Prevention Week, Lieut. Russell M. Hunt gave talks in the various borough schools. The following week Deputy Chief Charles Erickson, of the Camden, N. J., Fire Department, also addressed the school children. This follow-up was made, with the approval of the school board, to impress the pupils with the fact that fire prevention was not just for one week but should be observed daily.

Fire drills were held in all schools in the borough. Fire prevention coloring books were purchased from the NFPA and distributed in the elementary grades. A contest was held in the second grade of each of the schools for the three best colored books in each room.

Business Organizations

Addresses were given by Chief Cox and Lieutenant Hunt to the Haddonfield Business Association, the Lions, the Exchange Club, and the Holy Name Society. In conjunction with these talks, the film, "Electrical Safety," was presented by the International Association of Electrical Inspectors.

The local Rotary Club made arrangements with the Philadelphia Navy Yard for a demonstration of their fire fighting equipment. Special mention is given the Rotary Club for this trip, as it was the first service club in the boro to include fire prevention activities on its calendar.

Two windows in the business district were used for displays. One showed a complete doll house on one side and, on the other, a doll house that was burned out. Between these was a large sign, "This Can Happen to You," and a smaller card on the burned building reading, "Insurance Won't Rebuild This." Posters were used in this display.

The second window had a grave with a headstone, which read, "Fire Hazards or You?" Opposite this were samples of fire hazards such as matches, cigarettes, gasoline, pennies behind fuses, ironing board and iron, and a flue pipe with holes in it. The large sign in this window read, "Bury Fire Hazards before They Bury You."

The entire department under Capt. F. Thomas Holloway held a public drill at the junior high school, demonstrating various hose layouts, ladder practices, and rescue work.

Publicity and Literature

Posters, literature, and plays for the grade children were obtained from the National Board of Fire Underwriters. The fire department purchased the fire prevention newspapers and coloring books from the NFPA.

To call attention to Fire Prevention Week, 250 fire prevention signs were placed in conspicuous places over the borough. The newspapers were distributed house to house in the borough by the Boy Scouts.

In addition to this and the newspaper publicity, a fire prevention motion picture trailer was shown in the local theatre.

As a final touch, the annual fire prevention dinner was held in the fire station. About 120 people attended, including chiefs, officers, and directors of public safety from neighboring towns. The highlight of the dinner was the speaker, T. Alfred Fleming, director of conservation, National Board of Fire Underwriters.

Proposed Fire Prevention Ordinance

A fire prevention ordinance, to be county-wide in application, is the latest of the Haddonfield Fire Department's activities. The ordinance will be in force as soon as adoption technicalities are smoothed out.

The Haddonfield Fire Department traces its history back to 1764. It now consists of a paid chief, Jonathan F. Cox, and forty volunteers.

An Attractive, Modern Fire Station for a Part-Paid Fire Department

HERE is a fire station plan for a small community (say 4,000 to 8,000 population) that wants a good grade of fire protection and, at the same time, demands the most for its tax dollar. The station, designed for a part-paid and part-call department, houses three major pieces of apparatus on the main floor. A basement garage with entrance at the rear accommodates at least two more vehicles.

The interior dimensions of the main apparatus floor are approximately 60 feet long and 30 feet wide. This allows ample room for housing two officers' cars, in addition to the main pieces of apparatus, if desired. At the same time, construction costs are kept down by having much shorter floor and roof spans than would be necessary with a three-door fire station. The entire width of the station is but 45 feet, which is advantageous where land along a desirable street frontage is at a premium.

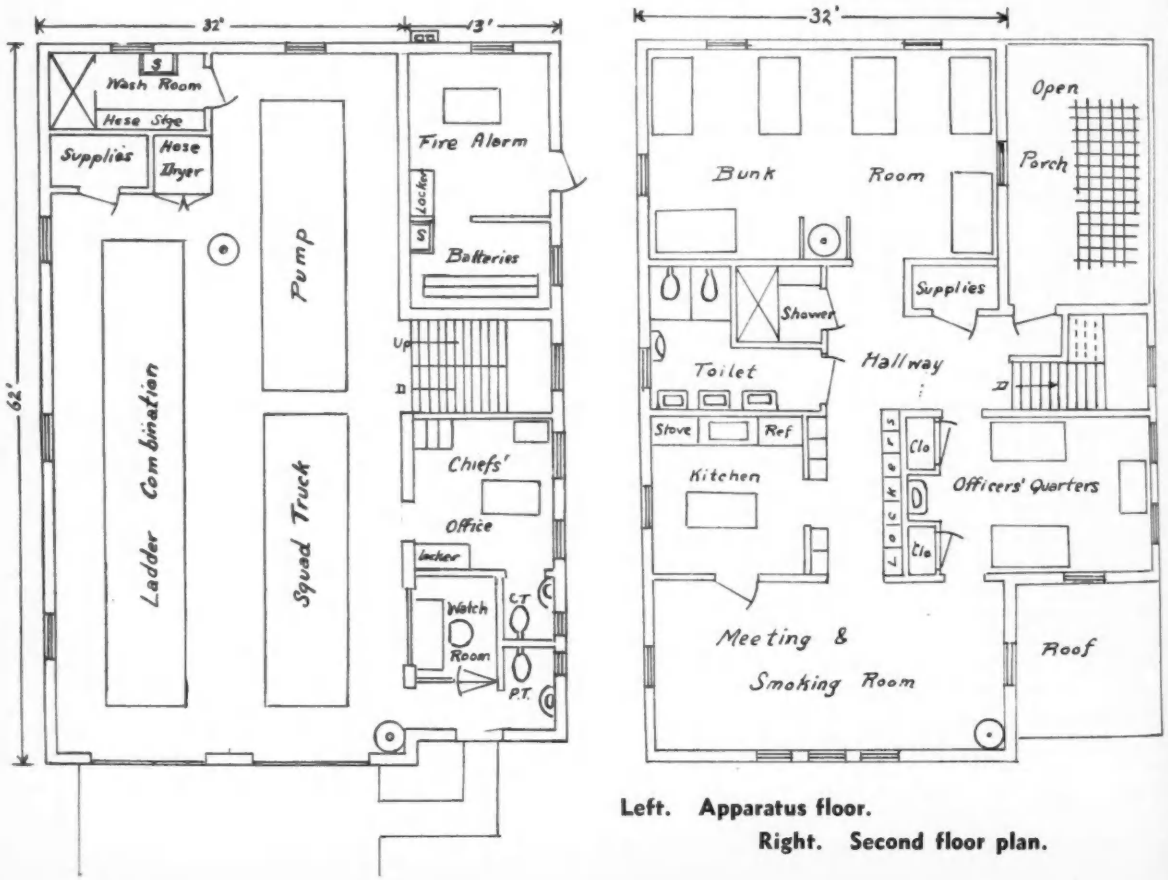
At one side of the building is a one- and two-story section or wing which, on the first floor, contains the public entrance and the watch desk from which alarms are received. This desk is located adjacent to the front of the apparatus floor and has a glass enclosure to permit supervision of the station. At the rear of the watchroom is the fire chief's office.

At the right of the apparatus floor from the center of the building is located the stairway to both the second floor and basement. This stairway is of metal construction with cement treads and is enclosed at the basement garage level by wired glass in metal frame doors.

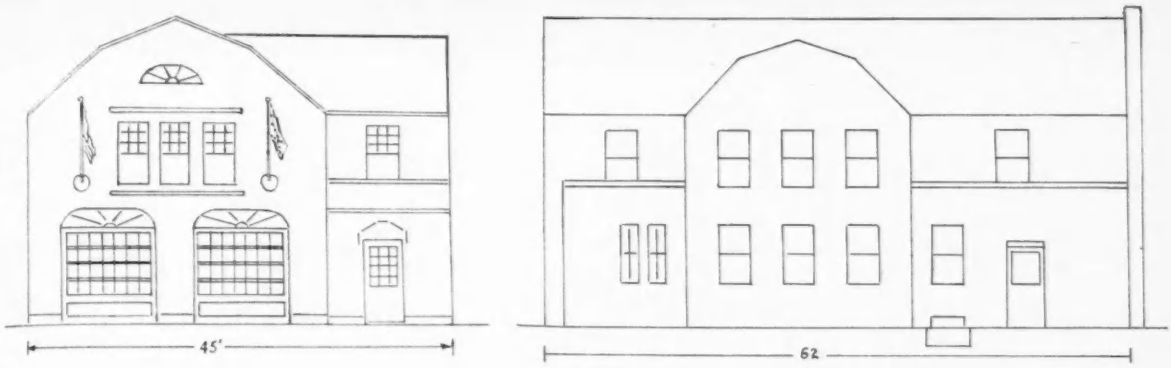
At the rear of the side wing is a separate one-story section housing the fire alarm central station equipment for a box alarm system having automatic transmission of alarms. There is also a battery room for the alarm system. According to underwriters' requirements, there is no direct connection between the alarm office and fire station. It is necessary to enter the fire alarm section through an outside door.

At the rear of the main apparatus floor is the hose drying cabinet, a large supply closet, and a unique wash and sinkroom. This is the place where appliances are washed and cleaned after use and there is a shower under which the men may stand to wash off their fire fighting gear.

At the basement level, in addition to the garage and shop which have a 16-foot long overhead door, there is a heater room for the automatic heating equipment. This is shown on the plan as accessible by outside entrance only,



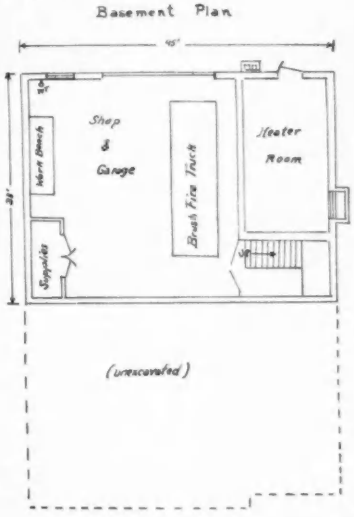
Left. Apparatus floor.
Right. Second floor plan.



but a direct entrance to the basement might be permitted if standard fire doors were provided.

To keep down construction costs, only about one-half the basement level is excavated to a full story depth as this space is not needed.

The second floor living quarters are designed for the accommodation of the permanent men, as well as the call firemen. The front meeting room, with windows on three sides, is 30 feet long and 14 feet wide. There is a 13- by 13-foot kitchen immediately adjoining, with electric stove and refrigerator.



The rear bunkroom for the paid apparatus drivers is 30 by 18 feet in size and has a slide pole for quick response to night fires. Adjacent to the rear bunkroom is an open tiled sitting porch, better than 12 by 22 feet in size. In the central hallway are lockers and a large supply closet. Toward the front of the building are the officers' quarters, 21 by 13 feet in size.

The station is designed to accommodate three apparatus drivers and one officer on duty with each shift.

"Who's Who" on the NFPA Staff

This is the fifth in a series of staff portraits of the guiding lights about the NFPA Executive Office at 60 Batterymarch St., Boston. These are the men who write and edit the books, magazines, posters, and pamphlets published under the insignia of the National Fire Protection Association. These are the men to whom you can turn for answers to your fire fighting, prevention, or protection problems.

CHARLES S. MORGAN serves as advertising manager of the Association and executive secretary for the Fire Marshals' Section. Upon graduation from Tufts College in 1936, he was employed by the New England Telephone & Telegraph Company until 1938, when he joined the executive office staff of the NFPA. The next three years, an extended period of indoctrination in the ways of Association work, included assignments in the editorial, advertising, fire record, and field engineering departments. During this time he assisted in the preparation of the several publications of the Association, made fire record studies and statistical analyses, and traveled throughout the eastern half of the country on various field assignments involving organization of local fire prevention activities and administrative surveys of municipal fire protection.

In 1942, Mr. Morgan succeeded NFPA General Manager Percy Bugbee as executive secretary of the Fire Marshals' Section of the NFPA. This very active group had its origin as the Fire Marshals' Association of North America in 1906 and was reorganized in 1927 as a Section of the NFPA. Its membership included the state, provincial, county, and municipal fire marshals of North America. Mr. Morgan has staff responsibility for the development of the Section and the general conduct of its affairs.

In his capacity as advertising manager, a position he has held since 1940, Mr. Morgan has responsibility for the solicitation, production, and billing of the advertising published not only in FIREMEN but also for that published in the *Quarterly*, *Handbook of Fire Protection* and *National Fire Codes*. The work of the advertising department has multiplied many times since the beginning of the war and its revenues are now an important part of the Association's budget.

In his outside interests, Mr. Morgan's tastes can best be described as salty. Regarding himself as a "fireside sailor," he has never quite gotten over three weeks spent on a five-masted schooner during a summer vacation nearly fifteen years ago. He is active in several maritime historical organizations and his knowledge of nautical lore has served him in good stead on many occasions involving NFPA activities in marine fire protection. He is married and has two children.

Marines Have Fire Control Well in Hand

by Corp. V. S. Price, U. S. M. C.

THE thirty-two Marines of the fire department at the Marine Recruit Depot, at Parris Island, S. C., have been so successful in their preventive measures for fire protection of the 1,040 buildings located there that they have had to set aside an area where they can practice fire fighting methods just to keep in trim.

Mutual aid to nearby local communities, sometimes as far as 60 miles from the post, gives the leatherneck firemen practical experience. The fire department's functions closely resemble those of any medium-sized city.

The fire department operates in two groups of fifteen firemen, each operating on 24-hour shifts, under the supervision of an assistant fire chief, a Marine staff sergeant. The staff sergeant in charge of each group is responsible to the fire chief, a Marine master sergeant, who, in turn, is responsible to the fire marshal.

The fire marshal, a Marine officer, is directly responsible for the training and operation of the department to the commanding general, who holds unexpected drills to ascertain the efficiency of the firemen and equipment.

The main buildings of the post are fire-resistive brick structures, but the majority of the buildings are of wood. The hospital area, consisting of about twenty wooden buildings, and the main hangar at the air station are equipped with standard automatic sprinkler systems.

Since fires occur infrequently on Parris Island, due to the preventive measures taken, a school area has been built where fire fighting is taught by practical experience in order that Marine firemen will be able to learn improved fire fighting methods.

All buildings on the post are equipped with fire extinguishers which are checked regularly by the fire department. The types of extinguishers in use are: foam, soda and acid, carbon dioxide, gas cartridge, and water. These extinguishers total more than 2,500. All the fire extinguishers, except the gas and water type which are recharged at the manufacturer's, are recharged at Parris Island.

There is a fireman on duty at the box type alarm system at all times. The operation of this system, which has four box and two alarm circuits equivalent to Class B underwriters rating, permits communication between any of the 109 fire alarm boxes and the fire house. Alarms are received in the fire house by tapper and gongs, and a time-date stamp records the exact time and date of an alarm.

In the event alarms are received by telephone, the fireman on watch determines the nearest box to the fire and, by the manual transmitter system, turns in the alarm so that the other activities that should know of the fire will also receive the alarm.

Upon receipt of the alarm, the power plant shuts off power to the burning building and the water works builds up the water pressure, increasing the normal hydrant pressure of 47 psi to 90 pounds. A total of 160 hydrants dot the area.

Fire fighting apparatus consists of six G.M.C. trucks and a Chevrolet booster truck. Four of the trucks, including the booster truck, are kept at the main fire house, two are kept at the rifle range fire house, 2 miles away, and the other truck is kept at an auxiliary fire house located a mile from the main station.

The booster truck, present at every fire, is used as a crash truck at the air field and for forest fires. It is equipped with a 300-gallon booster tank and a foam generator for 2½-inch hose. The truck carries equipment for producing both dry and liquid foam. (The dry foam is used strictly for oil and gasoline fires, such as at plane crashes.) It carries two carbon dioxide extinguishers and a hip-pack, using liquid foam for which the nozzle is adapted. The liquid foam hose is 1½-inch, with 300 feet of line from the booster pump.

There are six knapsack type pumps for forest fires. Also included are several salvage covers which are used

Continued on page 19

There is a fireman on duty at the alarm system at all times. The operation of this "Class B" system, which has four box and two alarm circuits, permits communication between the fire alarm boxes and fire stations.

Let's Get Acquainted

THIS FIRE DEPARTMENT protects the city of North Battleford, Sask., population 7,500, and responds to out-of-city calls in the event of emergency.

The department has one full-time chief and twenty-four call firemen. Seven call men working alternately on night watch are retained at two dollars per night. All seven are competent pump operators. Firemen receive $1.50 per call, $1.50 for every hour thereafter, and $1.00 per practice.

Members are active in their four practices a month and are interested in increasing their knowledge of fire fighting. Among the subjects covered are: chemistry of fire with demonstrations, hydraulics, ladder raising, pump operation, ventilation, knots, rescue, fire extinguishers, forcible entry, and salvage.

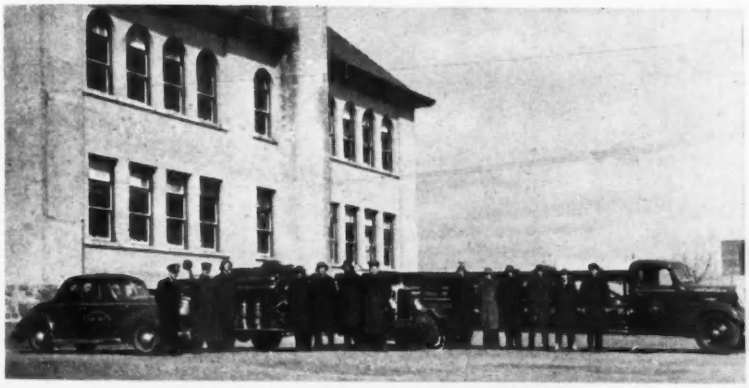
The department has the following equipment: a 1938 combination ladder truck (Ford), a 1928 triple combination Buick pumper on a G.M.C. chassis (LaFrance), and a Ford coupe for the use of Chief Elwin S. Owens.

In addition, the fire department has had an active hand in fire prevention for the past six months. Fire inspection is carried out daily and the city is cooperating 100 percent with all recommendations by the fire department. On June 4 a clean-up drive was carried out with the cooperation of every civic association.

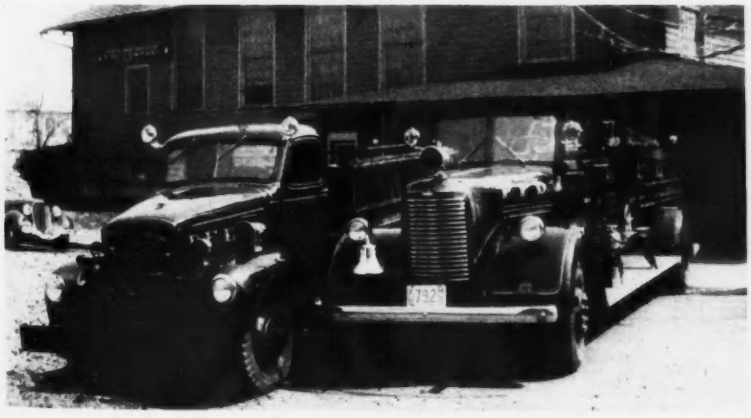
CHIEF HARRY ROBERTSON and his crew of volunteers of the North Merchantville Fire Company, of Pennsauken, N. J. (NFPA member), are justly proud of two new pieces of apparatus which they recently put into service, according to Edward J. Hahn, the fire company's director of public relations.

Continued on page 17

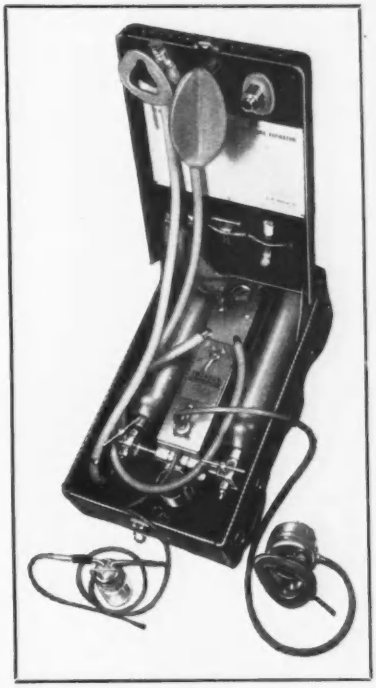
North Battleford, Sask., Fire Department



North Merchantville, N. J., Volunteer Fire Company



When Seconds Count
In Saving Human Life
be sure you have an



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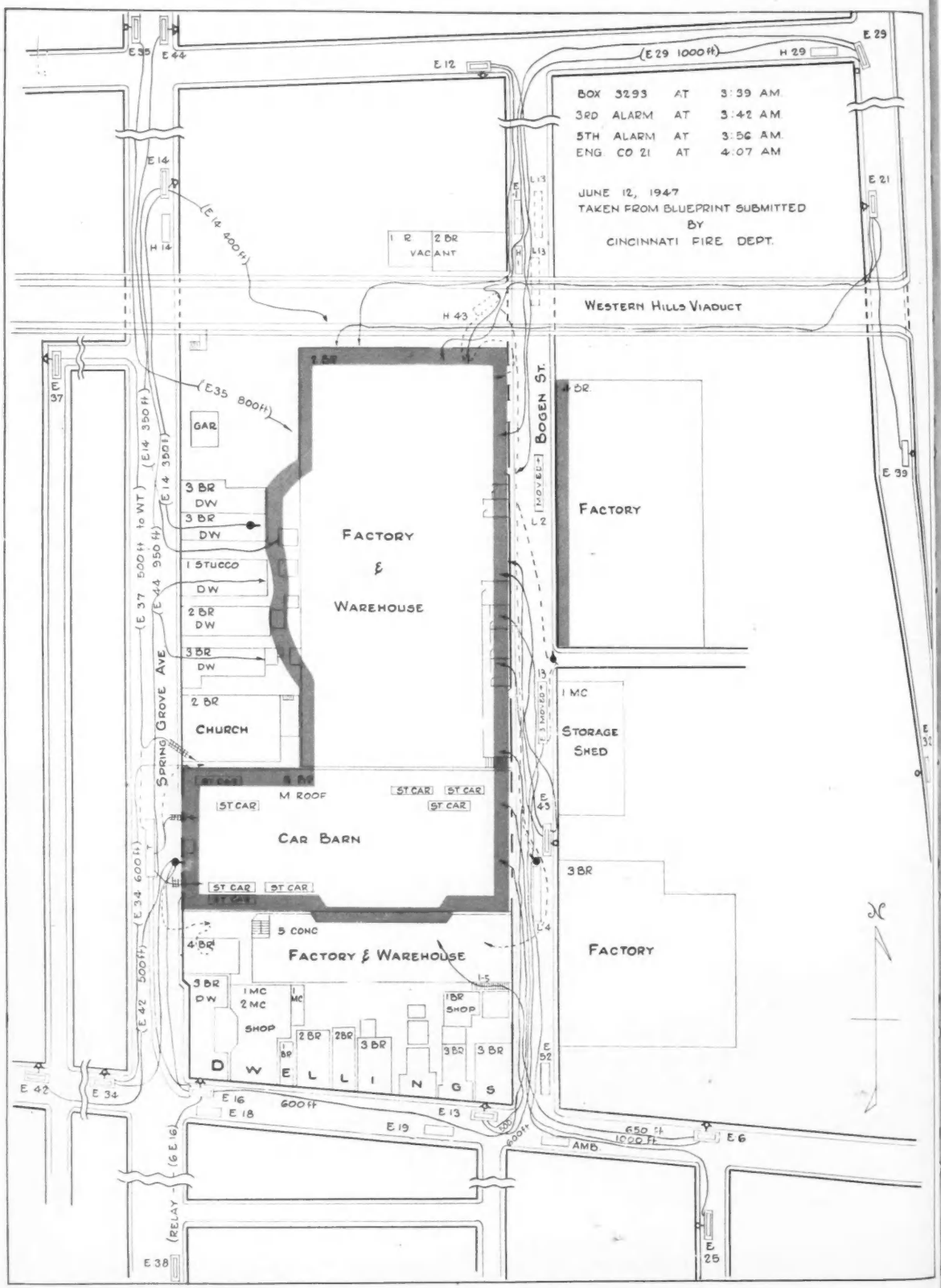

Saving Dairy Cattle from Blazing Barns

by W. Floyd Keepers

Concerned with the number of valuable dairy herds lost through failure to release the animals after fire has been discovered, the Editor requested Mr. Keepers, secretary of the Barn Equipment Association, of Chicago, to prepare the following suggestions for rural firemen.

MANY valuable dairy herds have been saved from burning barns because modern steel stanchions were installed in the barns. These stanchions are equipped with easy operating locks that cows cannot wedge too tight to release. The problem, in case of fire, is getting the cows out of the barn after they are released from the stanchions.

Manufacturers of modern stanchions have devised more than one hundred different stanchion latches, all of which have advantages in ease of operation, all of which can be opened with one hand. Recently I visited a dozen Wisconsin barns and no two of them had the same device to lock the stanchions. Every manufacturer has two or more latches; there is no single standard latch that could be selected as the best and adopted uniformly.

Manufacturers of barn equipment offer a lever stall arrangement whereby all the cows in a line, whether ten or fifty, are released instantly with a single lever operation at the end of the stall line. This type of stall has proven valuable in many instances where fire has destroyed barns. Many farmers prefer this type of stall and locking device for everyday convenience in handling the herd. Such an installation is credited with the saving of a purebred Holstein herd on the farm of Charles Saunders in Hennepin County, Minn., last March. A farm hand discovered the fire and had time only to throw the master lever and drive the cows from the burning structure.

In most farm fires, the first persons to arrive are the farmer, his helpers, and his neighbors. These men have no difficulty in opening the stanchion latches. They are accustomed to the various locking devices used on stanchions. The difficulty is not in releasing the animals but in getting them away from the burning structure.

Farmers with whom I have discussed this question agree that this is a condition with which they are unable to cope satisfactorily. Not so long ago, a manufacturer of barn equipment spotted a burning barn as he was driving on a country road. He was the first man to the scene and rushed in to free the livestock. He found some young animals in the barn and by the time other help arrived he had removed them to a nearby lot and closed the gate. About the time the fire was getting out of hand, someone, hurrying to help, came through the enclosure where the animals had been placed and left the gate open. Immediately the calves rushed through the gate and back into the burning barn where they were destroyed.

The big problem in farm fires is in eliminating the cause of the fire. Use of modern steel barn equipment is important since the equipment itself is incombustible. Of even greater importance is the fact that it does not harbor dirt and refuse that cause fires. The steel equipment when set in concrete floors and curbs offers no corners that are difficult to clean and keep clean. There are many sets of modern barn equipment that have gone through a fire and were reusable when a new barn was built.

Firemen should know that stanchions always open on the right side. The latch is at the top, usually on the right side. It will be opened by a squeeze of the hand or a simple lift of a ball or latch lever. Where lever stalls are used, the master lever is at the end of the line nearest the door. There are advantages of each type of stanchion and therefore there is little possibility of arriving at a standard arrangement on all farms.

Firemen in rural areas will find it advantageous to visit a number of dairy barns to study the equipment generally used. In many cases local farm supply dealers will have stanchions on hand and will be glad to explain the latch operation of these and other equipment in the store.

Barn Equipment Assn.

This Hennepin County, Minn., barn was equipped with lever stalls. All the cows were released at one time and were driven from the structure. Owner Charles Saunders credits the lever arrangement for saving the herd.

←

This diagram, contributed by Chief Barney J. Houston, shows how the Cincinnati Fire Department controlled a $250,000 warehouse fire which threatened to develop into a major conflagration at 3:42 A.M. on June 12.

Fire was not discovered until flames were through the roof. The water supply situation required relay pumping to supplement water immediately available.

Chief Houston summed up the fire in these words, "The lesson taught by a fire of this type is very obvious, namely, the installation of a sprinkler system which could have controlled and held the fire until the arrival of the fire department, or the installation of an alarm system which would have notified the fire department before the fire got out of control, or the erection of fire walls and installation of fire doors, thus confining and having smaller areas, also the employment of a night watchman."

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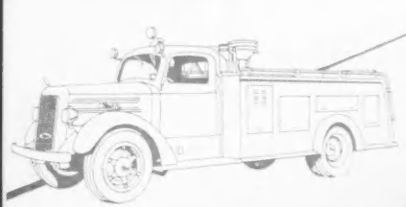
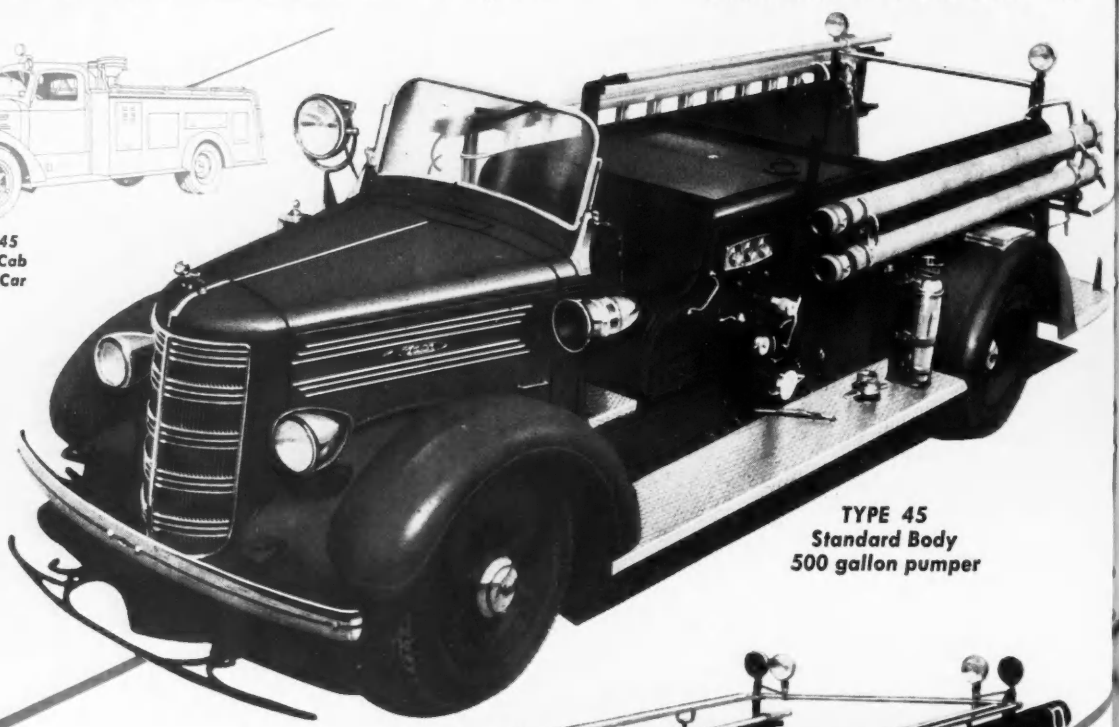
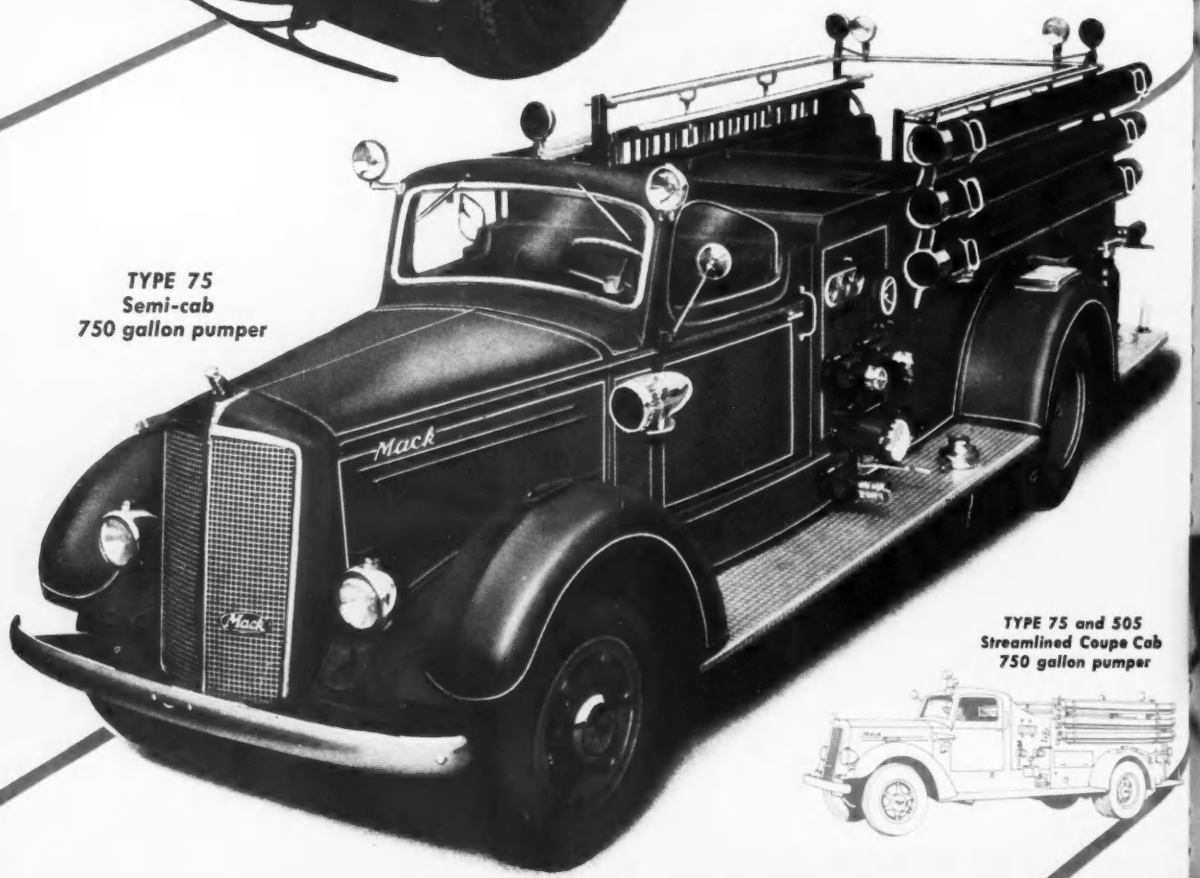


TYPE 45
Coupe Cab
Squad Car



TYPE 45
Standard Body
500 gallon pumper



TYPE 75
Semi-cab
750 gallon pumper

TYPE 75 and 505
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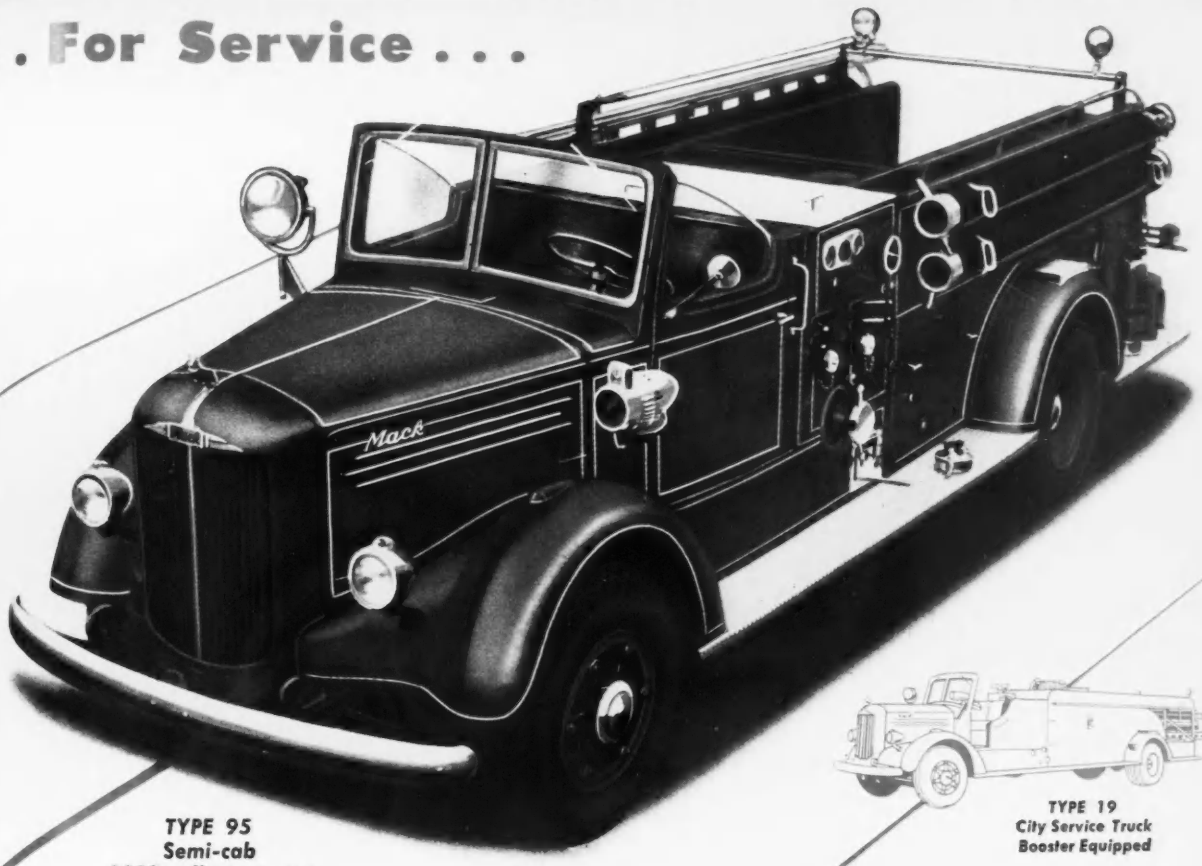

TYPE 95
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TYPE 19
City Service Truck
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TYPE 85
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MANUFACTURERS' ANNOUNCEMENTS

New Ansul Dry Chemical Fire Extinguisher

A NEW 4-pound model dry chemical fire extinguisher, known as the Ansul 4, which the manufacturer states has received very high ratings for effectiveness from national approval agencies, is announced by the Fire Extinguisher Division of Ansul Chemical Co., Marinette, Wisconsin. The extinguisher, only 19⅛ inches long and 3½ inches in diameter and light in weight, is designed for effective use by inexperienced operators, according to the manufacturer. Like all Ansul extinguishers, it is suitable for extinguishing fires in flammable liquids and electrical equipment and also for controlling small surface fires in ordinary combustibles. The extinguishing agent used, Ansul Plus-Fifty Dry Chemical, is claimed to be non-toxic, non-corrosive, non-abrasive and a non-conductor of electricity.

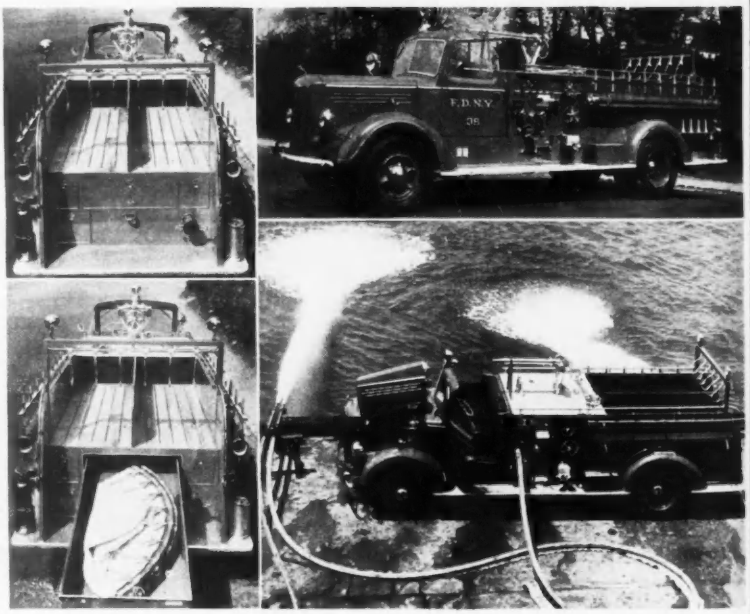
New Akron Brass Folder Describes Light Alloy

AKRON BRASS MFG. COMPANY, of Wooster, Ohio, has published a handsomely illustrated four-page folder covering the new "Akrolite" line of light weight aluminum alloy fire hose couplings, nozzles and other equipment. The folder which provides technical and performance data, is free on request from fire department or other city officials and industrial users.

Cairns Offers New Catalog

CAIRNS & BROTHER, foremost manufacturer of firemen's helmets for more than a century, has recently published an attractive illustrated leaflet describing not only their broad line of helmets but also the numerous other items distributed by the company. The products mentioned include complete firemen's outfits, badges, parade belts,

Continued on page 26



The feature editorial last month described the forty pumpers purchased recently by the City of New York. Illustrated above are a few of the score of new pumpers delivered to New York City by the Mack Manufacturing Corporation. These pumpers are rated at 750 gpm at 150 psi but are capable of delivering full capacity at 200 psi.

Let's Get Acquainted

Continued from page 11

The most recently acquired piece of apparatus is a Pirsch 55-foot aerial ladder truck. This truck should prove indispensable at any residence or other building fire in Pennsauken's large township. It is equipped with over 200 feet of ladders including a 40-foot extension. It also has a 150-gallon booster tank and standard ladder company tools.

The other new truck is a G. I. Chevrolet fire truck purchased from the War Assets Administration and turned over to the truck committee for a civilian transformation. Following are most of the major changes recommended by the committee and carried out:

Lower the chassis 6 inches, thus bringing the back step to a level similar to the other trucks; install streamlined front fenders; rechrome where necessary; install sealed beam headlights; fit non-skid metal treads on the sideboards; and send to paint shop for complete painting and lettering.

This truck, with a 300 gpm centrifugal pump and a 300-gallon booster tank, carries 350 feet of 2½-inch hose and 350 feet of 1½-inch hose. It has two 5-gallon cans of foam and a foam nozzle, a 15-pound CO_2, Indian pump tanks, rakes, brooms, and short ladders.

The company also has three other pieces of apparatus: an American-La France 750 gpm pumper carrying 1,000 feet of hose, a Locomobile chemical truck, and a Chevrolet lighting truck. This latter truck has a gasoline-driven generator which powers four lights.

Last year the company answered a total of 115 alarms, only one of which was false. The men made 1,848 individual responses and compiled a total of 102 hours of fire duty. Property valuation subject to these fires was $85,000, with only $575 loss.

U. S. FIRE LOSSES for the month of July were $49,357,000, according to National Board of Fire Underwriters' estimates. This was an increase of 20.4 percent over the July 1946 total, but 2.92 less than the June 1947 loss figure and the lowest for any month this year.

Losses for the 12-month period ending July 31 totaled $641,834,000, as compared with $526,188,000 for the year ending July 31, 1946.

Properly formulated wetting agents may be effectively used in *Indian Fire Pumps*, including galvanized steel tanks now coated on the inside with asphaltic base paint.

Now is the time to plan your fire fighting equipment for the future. Include plenty of *Indian Fire Pumps*. Only clear water used—no chemicals. 5 gal. tank carries slung on the back.

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Gentlemen:
Please rush this order for No. 90B Indian Fire Pumps. This makes 8 of these units in our fire department. They are as valuable to us as a 500-gallon pumper. Yours very truly,
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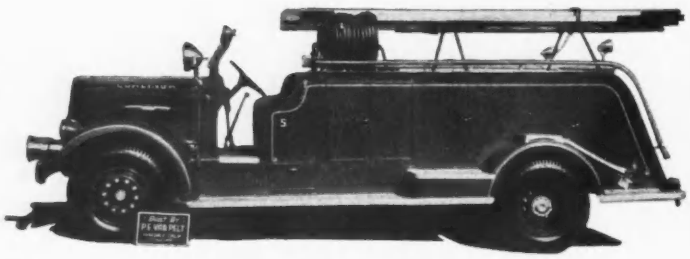
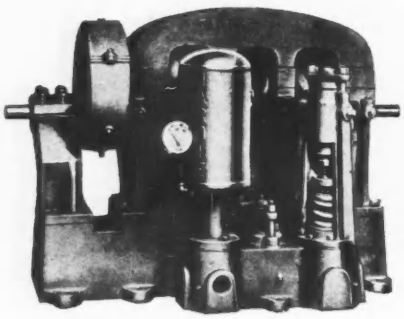


● The heart of this beautiful Fog Fire Fighter built for the city of Coalinga, California by P. E. Van Pelt is a Hardie Imperial LCXA pump. The pump and 400 gallon tank are assembled on a White chassis.



● This Hardie Imperial LCXA Pump delivers 60 G.P.M. at 800 P.S.I.

The smaller Hardie XCXX Pump delivers 30 G.P.M. at 800 P.S.I.

● A Hardie pump assures complete and lasting satisfaction in the ownership and use of a Fog Fire Fighter unit. Hardie gives sustained high pressure, ample volume and a long life of dependable trouble-free operation.

That is why leading builders of fire control equipment employ Hardie pumps and Hardie Fog Guns, in new or reconverted fire trucks.

Specify a Hardie pump when you buy a Fog Fire Fighter and get all the benefits of this amazing new fire control method.

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High Pressure PUMPS AND FOG GUNS for Fog Fire Fighters

The Fire Truck that Went to College

ALTHOUGH its years of service protecting the community are over, a 1923 Stutz fire engine (which company since has suspended operations) is today receiving almost as much use as it did when owned by the Bloomington, Ind., Fire Department. The truck is now the property of an Indiana University fraternity house

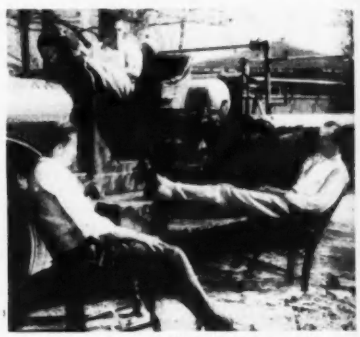


Photo by Norman Sklarewitz

The Delta Upsilon boys relax about their fire truck on a warm afternoon.

and in continuous use carrying students to class.

This novel use for a piece of fire apparatus came as a result of an auction announcement in a local newspaper. The item mentioned a municipal sale of outdated city equipment and it was seen by Steve Waller, a member of the Delta Upsilon fraternity. Steve rounded up six of his buddies, pooled their available cash, and that afternoon filed a sealed bid for $101.01. They decided on the odd number after figuring they thus would have a lead over any even-numbered bids. A few days later the city council announced that they were high bidders, and the D.U. house became probably the first and only fraternity in the country to own its own fire engine.

Steve became house fire chief and the rest of his partners were made official members of the department. The truck was turned over to the boys complete with the exception of the siren and bell.

Chief Bernard Glover, of Bloomington, relates that the Stutz had an interesting history. It was involved in a major accident in 1925. When responding to a Christmas Day alarm, the truck was hit by an express train and almost demolished. A chief was killed and four of his men seriously injured.

Marines Have Fire Control Well in Hand

Continued from page 10

to cover furniture and valuables, especially in fires in two-story or higher buildings when water is used in the upper stories in large quantities. Four fire axes, two types of door openers, and a metal battering ram are other items. This truck carries most of the miscellaneous equipment, including extra nozzles, double female connections, adapters, and donut roll for use with the foam generator.

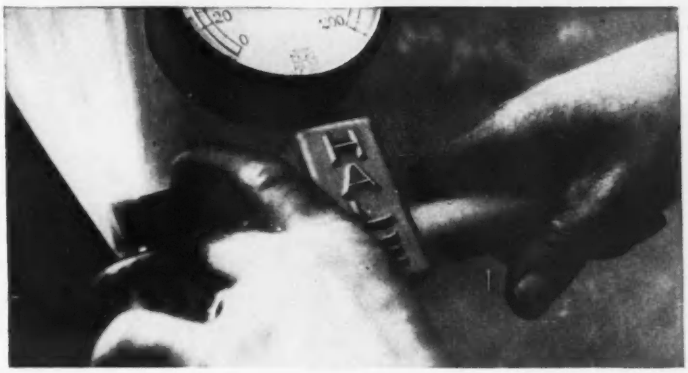
There are racks in the fire station capable of holding sufficient hose to re-hose all the trucks, and a hose tower for drying the hose. Ten thousand feet of hose are always kept in reserve. It takes 6,400 feet to re-hose completely.

The first run truck is set up to operate with two 1½-inch leader lines from a gated wye, one solid stream and one fog. There are three men on the tail board, one man on the wye gate, and two men on the nozzles. If the leader lines do not furnish sufficient water, they can be disconnected and replaced with two 1½-inch nozzles without appreciable loss of time.

The first run pumper has a 500 gpm capacity and is called a quad because it pumps water, carries ladders, booster tank and hose. It also has 45-pound carbon dioxide extinguishers. There are two quads in the department and all the others are triples. The second run pumper is equipped with a skid load with regular 1-inch tip, 2½-inch nozzles.

Due to military necessity, there is an average personnel turnover of five men per month. This necessitates a continuous training program which includes the recharging of extinguishers, operation of engines, maintenance and operation of other equipment, and hose and ladder drills. In addition, these Marines must stand regular military formations and maintain the same military efficiency as others who perform regular line duties.

Each organization on the post is required to submit and maintain a fire protective plan, compile a fire protection bill, carry out the provisions therein, and submit a monthly report of fire drills and conditions of the buildings. These reports are verified and checked carefully, for it is known that prevention is the best method of combating fire and keeping the situation well in hand.



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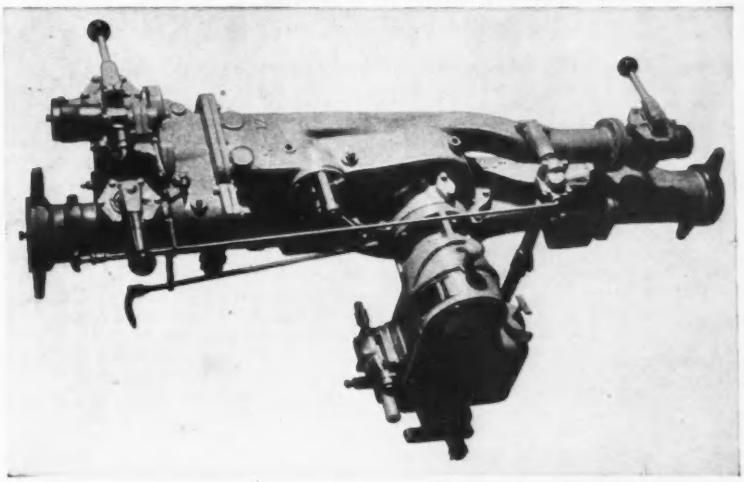
They know they can depend on HALE for the right volume and the right pressure to fit a wide range of tough fire fighting conditions.

Make sure of this same flexibility, efficiency and dependability in your next piece of apparatus by insisting on a Hale Fire Pump.

Hale Fire Pumps are built in all Standard Capacities . . . Sold only through Manufacturers of Quality Apparatus.

Below—Hale Type ZL Multi-Service Centrifugal Pump



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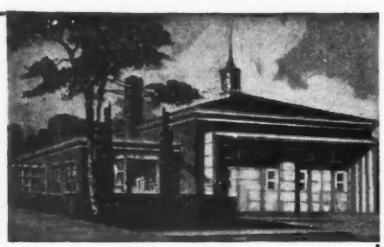

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Without adequate drying equipment, or with towers in need of repairs they are most economical and efficient. Cheaper than a tower, more compact than a drying rack, faster and easier to use than either.

ASK A CHIEF WHO HAS ONE

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575 E. Milwaukee St. -:- Detroit 2

Fire Department Informs Businessmen of Fire Dangers

STILLWATER, OKLA. — Last year an entirely new method was used during Fire Prevention Week by the fire department in Stillwater to inform the local businessmen of the fire dangers in their respective establishments.

Each business head received a personal letter from the fire chief, Everett Hudiberg, calling attention to the alarming increase in fire losses in the United States. The letter read as follows:

A & M Grocery
1002 Main Street
Stillwater, Oklahoma

Last year approximately 100,000 mercantile buildings burned in the United States — 275 every day. These businesses were very similar to the A & M Grocery. The actual dollar and cents value of these buildings and their contents was about 83 million dollars. While the actual cash value is alarming, the loss of scarce articles and the almost impossible job of obtaining building materials to rebuild is even more serious.

We have searched the records of the National Fire Protection Association covering fires in businesses such as yours during the last 10 years to find the cause of these fires. Here is what was found:

(1) 22% of the fires were caused by matches and smoking. Using matches to see in unlighted closets and carelessly discarded cigarette butts and matches were the leading factors that caused fires in this classification.
(2) 15% from electrical equipment. The principal causes were electrical wiring, short circuits, temporary electric cords, and overfusing.
(3) 14% from ignition of rubbish and litter. Poor housekeeping is the principal cause in this classification.
(4) 11% from heating equipment. Defective stoves, overheating, and lack of proper clearance were the main causes.
(5) 10% from spontaneous heating — oily rags, painters' materials, and cloths used in connection with the job were the chief causes in this classification.
(6) 6% of fires in stores were caused by spread of fire from other buildings.
(7) 4% were of incendiary origin.

The records show that half of all these fires start in the stockrooms or basements, and that 20% start in the salesroom. These areas are your HOTSPOTS! We have made this effort to give you definite information concerning your own particular fire causes in the hope that it will be used by you to eliminate the hazards in your store. Your Fire Department is as close as your telephone, and we are always willing to help you concerning fire safety.

Sincerely,
EVERETT HUDIBURG, *Chief*
Stillwater Fire Department

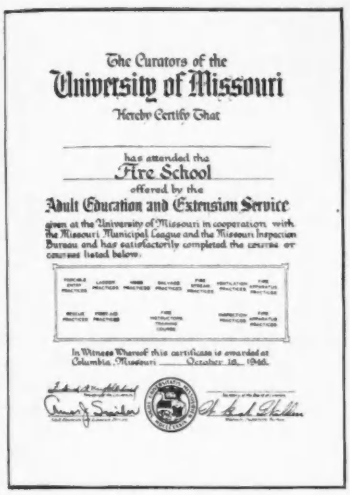
The NFPA *Handbook of Fire Protection* was used to a great extent in preparing this letter. Chapter 16, which deals with fire causes and hazards by occupancy, was especially helpful.

Over 1,000 individual letters were sent during the week to mercantile establishments such as grocery stores, furniture stores, and garages, motion picture theatres, schools, and churches.

Kansas City, Mo., Fire Captains Win Diplomas

SEVENTY-TWO captains and two district chiefs of Kansas City, Mo., recently received certificates from the University of Missouri for completion of an instructor-training course designed to qualify them as instructors of fire fighting techniques.

Presentation of certificates was made by Dr. Thomas A. Brady, vice president of the university, at a dinner at the Pickwick Hotel, presided over by Director Francis Wornall, of the fire department. The dinner meeting was attended by Mayor William E. Kemp, Fire Chief John T. Lynch, the city council and other municipal officials.



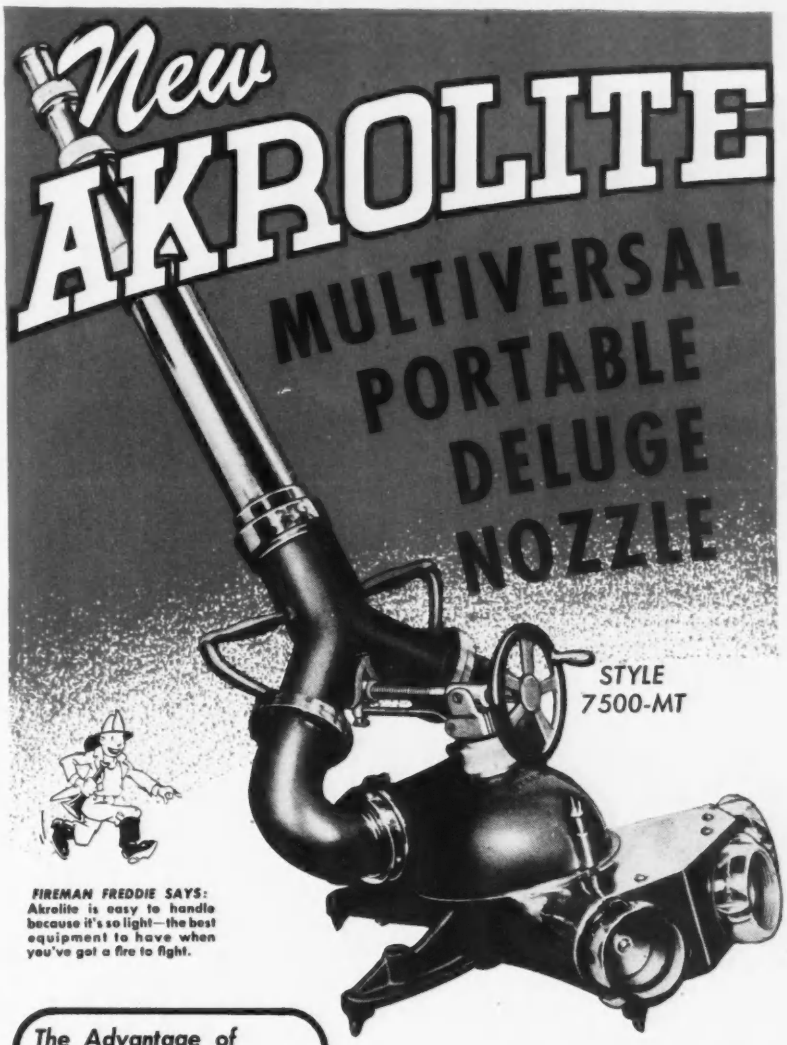
The Curators of the
University of Missouri
Hereby Certify That

has attended the
Fire School
offered by the
Adult Education and Extension Service
given at the University of Missouri in cooperation with the Missouri Municipal League and the Missouri Inspection Bureau and has satisfactorily completed the courses or courses listed below:

In Witness Whereof this certificate is awarded at Columbia, Missouri, October 16, 1946.

In making the presentation, Dr. Brady remarked, in part, "This is a very important occasion for the Kansas City Fire Department and for the history of fire training in Missouri. Our fire training program, which is now developing so satisfactorily, is the result of the work of three leaders in this field. Francis Wornall, Director of Fire, M. I. Parker, Missouri Inspection Bureau, and Chief F. M. Walden, of the Columbia Fire Department, are the men who have had the perseverance and vision to promote fire training in this state and to request the university to take over the program.

"We are awarding certificates indicating completion in a satisfactory manner in our Fire Instructors School which indicates that you are qualified to instruct other firemen. As far as I know, this is the first large city in the country to have all of its captains qualified and certified as fire instructors."



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The features which make Akron Multiversal Nozzles so efficient, are now enhanced by the lighter weight of AKROLITE — two-thirds lighter than brass — easier to handle — lessens fatigue.

Akron Multiversal Nozzle directs the stream where wanted — up or down — or in a complete circle. Once in action it stays put, releasing men for other duty.

Write today for illustrated, descriptive folder on the new AKROLITE line.

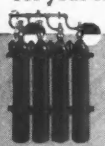
AKRON BRASS MFG. COMPANY, Inc.
WOOSTER, OHIO

AKRON BRASS
FIRE FIGHTING EQUIPMENT

*I*f you have two or more extra-hazardous processing areas or storerooms in your plant, you can safeguard them with one C-O-Two carbon dioxide system. The instant a fire starts in any one of the spots, simply turn a selector valve to flood the threatened space with clouds of cold, dry carbon dioxide gas. The fire is stopped quickly and easily.

C-O-Two is especially recommended for fires in electric equipment, motors, solvent tanks, spray booths, and flammable liquid storage. It is non-conducting, non-contaminating, non-deteriorating. It penetrates the smallest crevices and equipment, finishes, or fabrics.

Find out more about modern, clean carbon dioxide fire protection. Write for your free copy of "C-O-Two Kills Fire . . . Saves Life!"



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Sales and Service in the Principal Cities of U. S. and Canada
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Please send me your free booklet, "C-O-Two Kills Fire . . . Saves Life."

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Title_____

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C-O-TWO

Coming Events

September 1-5—Western Pennsylvania Firemen's Training Institute, State Teachers College, California, Pa.

September 13—1st Annual Convention and parade of the Salem County Fireman's Assn., Elmer, N. J.

September 14-17—52nd Annual Convention of the Pacific Coast Assn. of Fire Chiefs, Spokane, Wash.

September 15-20—3rd Short Course on Fire Administration, Ohio State University, Columbus.

September 22-24—14th Annual Indiana State Fire School at Purdue University, Lafayette.

September 22-28—25th Annual Convention of the California State Firemen's Assn., Hobergs, Lake County.

Fabulous Loss in a Shanghai Blaze

REPORTS of big fires in Shanghai, China, are very much like their counterparts in a North American city with the exception that the losses may be of astounding proportions. Chief Z. Z. Chow, director, Shanghai Fire Department, reports a warehouse fire in April that caused a loss of nine billion, one hundred million Chinese dollars (9,100,000,000 C.N.C.). This fire, discovered at 12:29 A.M. by outside persons, started on the second floor of a 4-story brick warehouse and extended to the first and third floors by means of open stair shafts. Chief Chow attributes the headway of the fire to lack of an automatic alarm system and observes that the property management was "not very 'fire conscious,'" similar to many business firms on other continents. Twenty engine companies used 46 2½- or 3-in. lines, 1 1½-in. line and 14 booster lines, holding the fire at communicating openings and saving approximately two-thirds of the building and half the value involved. Three lines from a private hydrant also were used. Fire was attributed to sparks from an electric welder falling into rolls of paper.

Los Angeles Fire Department Plans

IN *The Firemen's Grape Vine*, LAFD magazine, Chief John H. Alderson reports that the next budget includes funds for extension of 2-way radio to 40 additional fire trucks; $5,460 for new combination fog-straight stream nozzles, portable light units for all truck companies, 5 new rescue trucks and 5 new salvage trucks.

VIGILARM INSULATED TUBING

THE FIRE DETECTING ELEMENT

PROTECT CITY BUILDINGS

Against Fire

THE CITY HALL • HOSPITALS • SCHOOLS • AUDITORIUM • LIBRARY

WAREHOUSES • GARAGE • AIRPORT • POLICE AND FIRE STATIONS

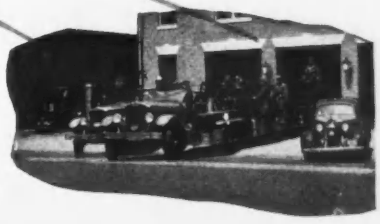
With the

VIGILARM SYSTEM

AUTOMATICALLY DISCOVERS FIRE AND CALLS FIRE DEPARTMENT

Deriving Maximum Utility from existing Fire Defenses.

The Vigilarm System is of the Rate-of-Rise Type, operates in a matter of seconds following any sustained rise in temperature irrespective of prevailing room temperature, and hence, far faster than thermostats of fixed temperature types . . . It is of the Continuous Line Type and *protects every square foot of interior building area 24 Hours Daily.*



Plans and Estimates on this form of Relatively Inexpensive Protection Freely Supplied.

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NEWTON UPPER FALLS 64 MASSACHUSETTS

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Barton-American Front Mounted

AMERICAN-MARSH PUMPS

Barton-American Midship

FIRE APPARATUS CENTRIFUGAL PUMPS

DUPLEX, TWO-STAGE MIDSHIP MOUNTED

High Pressure performance entirely unaffected when unit used to pump gritty water.

•

Impellers mounted on individual shafts—breakdown of one pump still leaves one for service.

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250 pounds pressure at engine speed equal to 30 M.P.H.—not possible with conventional two-stage pumps.

Patented

Other Types with Capacities to 750 G.P.M.

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AMERICAN MARSH PUMPS, INC., Battle Creek, Michigan

Pumps — and pumps only — since 1873

MIDWESTERN Protective Clothing for Men of Action!

Here's Protection and Comfort in Your Hazardous Work of Safeguarding Life and Property against FIRE!

Today there is a real shortage of raw materials that meet our rigid specifications. As a result, we are unable to keep pace with the demand for Mackinaw Coats and other Midwestern clothing for immediate delivery.

We maintain our reputation by refusing to use inferior materials which will lessen the service of our products. This fact alone will make it well worth your while to place your order for scheduling into our production as soon as possible. There is no substitute for the extra protection, built-in comfort, and longer wear you get in Midwestern clothing.

Have your Midwestern dealer show you our complete line now made of natural rubber. Note the softness, the flexibility, the high grade materials used to assure long service, comfort, and protection. Available in white and ivory rubber.

NONE GENUINE WITHOUT THIS TRADE MARK

Available for immediate delivery subject to prior sale, all sizes firemen's short and ¾ boots.

MIDWESTERN MFG. CO. MACKINAW ILLINOIS

Manufacturers of the Famous MACKINAW Coats

New Texts

CARBON TETRACHLORIDE. No. 9, Department of Labor Series, "Controlling Chemical Hazards." 10 cents per copy from the Superintendent of Public Documents, U. S. Government Printing Office, Washington 25, D. C.

The bulletin points out that while carbon tetrachloride ($CC1_4$) is relatively safe when under efficient engineering control, it is definitely toxic. It cautions that by inhalation of vapor and by prolonged or repeated contact with the skin, fatal poisoning may result. The bulletin discusses the fire fighting uses of this chemical, as well as possible fire hazards resulting from industrial use in combination with other solvents of different vaporizing characteristics.

LOCAL FIRE ADMINISTRATION IN PENNSYLVANIA, by Elizabeth Smedley, published by the Department of Internal Affairs, of the Commonwealth of Pennsylvania, Harrisburg. 138 pages.

This is undoubtedly the most comprehensive treatise on fire department organization available in any state. It contains sections on administration, equipment, personnel, and special services. According to the study, there are twenty-five full-paid fire departments in Pennsylvania having 4,203 men and protecting 35 percent of the population. In addition, there are several part-paid fire departments. In 1945 Pennsylvania had 1,710 volunteer fire companies with 241,821 members, of whom 76,632 were active firemen.

The financial support of both paid and volunteer fire departments is treated at length with sources of income, such as municipal appropriations, donations, membership dues, and entertainments fully discussed. Other topics covered include municipal liability and ownership of stations and equipment, which in most cases rests with the volunteer departments.

There are 2,856 pieces of apparatus, of which 2,170 are pumpers, 70 aerial ladders, 115 city service ladders, 57 pumper ladder trucks, and 18 squad trucks.

Also discussed are alarm facilities in the various departments, qualification and selection of volunteer firemen and various training programs for firemen, ambulance service by fire companies, and the work of fire marshals.

The one weak point in the text is that while there is good historical treatment of the local development of

the fire service, it does not in all cases cite the specific state statute or legal reference involved.

THE MUNICIPAL YEAR BOOK, 1947. 14th ed. International City Managers' Assoc., Chicago. 550 pages. $8.50.

The purpose of this annual authoritative résumé of activities and statistical data of American cities is to provide municipal officials with discussions of current city problems. To make the *Year Book* of more use to officials in smaller cities, this volume contains more information than in previous years about cities under 10,000 population. Of particular interest to the fire service are the 39 pages on fire administration, introduced by a report by NFPA General Manager Percy Bugbee.

MEMBERSHIP REPORT

Every member receives a handsome membership certificate illustrating the history of fire protection.

National Fire Protection Association, International

Associate Membership

VOLUNTEER FIRE COMPANY SECTION

($10 annual dues) Eligible:

(1) all bona fide volunteer fire organizations in any community.

(2) all fire departments and companies in communities of less than 25,000 population.

(3) all industrial fire brigades.

Member volunteer fire companies receive ten copies of FIREMEN magazine each month, mailed to the homes of individual firemen. Beyond the ten, additional copies of FIREMEN cost $1 per year.

Volunteer Fire Company Section members, receive, at their headquarters, one copy of all publications sent to NFPA associate members.

ASSOCIATE MEMBERSHIP ($10 annual dues) Eligible: Individual fire department officers, firemen, and others interested in fire safety. NFPA associate members in the fire service receive: one copy of FIREMEN magazine monthly, the NFPA **Quarterly**, the monthly **News Letter**, technical standards, popular bulletins and posters.

All associate members have one vote in Association affairs.

New members of the Volunteer Fire Company Section are:

UNITED STATES

Bayard Fire Dept., Bayard, N. Mex.
Elgin National Watch Co., Elgin, Ill.
Sultan Volunteer Fire Dept., Sultan, Wash.

CANADA

Rothesay Fire Dept., Rothesay, N. B.

100 FEET BELOW SEA LEVEL

FIREMEN GO UNDER RIVER TO PUT OUT TUNNEL BLAZE

Thurs., May 15, 1947—The New York City Fire Department today met an emergency described as the first of its type ever fought.

In a scene reminiscent of a coal mine disaster, firemen successfully fought a stubborn fire in a tunnel 100 feet under the East River. It was put out without loss of life or serious injury by a squad of five firemen and a Captain, all wearing Scott Air-Paks.

Excerpt from New York Herald-Tribune

Scott Air-Pak

DID THE TRICK!

- **Once again** the Scott Air-Pak contributed to a reduced fire loss, and with greatly reduced risk to fire-fighting personnel.
- **Once again** the Scott Air-Pak did a job that could not be accomplished with other breathing equipment.
- **Once again** it has been proved that the best breathing equipment is the equipment ready for *any* emergency.

The fact that Scott Air-Paks were available when this emergency occurred is indicative of the far-sightedness of New York Fire Department executives charged with the protection of life and property. The safety and efficiency of **your** firemen can be immensely increased by the use of Scott Air-Paks.

ONLY THE SCOTT AIR-PAK

- Can be used in any temperature from below zero to desert heat.
- **Only** the Scott delivers fresh, cool, confidence-inspiring air.
- **Only** the Scott has a cylinder gauge to prevent the inadvertent use of empty or partly empty cylinders.
- **Only** the Scott has acid-proof and corrosion-proof straps and fittings.
- **Only** the Scott has a battle-tested and emergency-proved Regulator.
- **Only** the Scott has a custom-built, not a commercial, gauge, within the wearer's vision.

The Scott Air-Pak has Bureau of Mines Approval No. 1308

Write today for literature, and the name of your nearest Scott Distributor.

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SCOTT AVIATION CORP.

236 Erie Street, Lancaster, N. Y.

Established in 1932

Scott

FOR SAFETY—FOR SERVICE

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The all-climate, dependable
MECHANICAL FOAM EXTINGUISHER
It flows—covers—seals—extinguishes
» » » Highly effective on oil and gasoline fires » » » Use with any kind of water — at any temperature — in all makes of equipment.

Approved for use under
Joint Army Navy Specification C-266

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153 Waverly Place, New York 14, N. Y.

CAN PAY FOR ITSELF IN SIX MONTHS
By eliminating Dry Batteries

5" TRUE parabolic, silver plated reflector; 25,000 c.p. beam; ⅓ mile range; sturdy metal case; corrosion proof terminals

Only 72 ounces • Will not spill in ANY position

Battery change in 10 seconds without returning to factory

NON-SPILLABLE RECHARGEABLE
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MASTER-LIGHT
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Write for new Emergency Lighting Bulletin
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168 MASTER-LIGHT BLDG.
Boston 45
SOMERVILLE, MASS.

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MANUFACTURERS' ANNOUNCEMENTS

Continued from page 16

banners, fire record books, and other items. A copy of the leaflet will be sent on request to Cairns & Brother, 85 Bloomfield Ave., Allwood, Clifton, N. J.

Fire Station Design Subject of New Circul-Air Brochure

THE Circul-Air Corporation of Detroit, manufacturers of the Circul-Air Fire Hose Dryer, announces the publication of a 24-page booklet on Fire Station Design. This brochure is the first of a series of books depicting perspective drawings, floor plans and ideas submitted by leading architects, fire chiefs and technical writers affiliated with the fire service.

The book is available, free of charge to all municipal officials, fire chiefs, architects or other parties interested in planning new fire structures. It shows a wide range of design with plans suitable for fire departments of any size. Many bungalow stations are shown, as are central headquarters and municipal buildings with fire and police departments. The trend is decidedly toward the "one floor" plan, even in larger cities, except for central stations. In the booklet are included colonial, Cape Cod, conventional and modern design. Spanish treatment and other localized styles will be treated in subsequent issues. Copies of the "Symposium" may be had by addressing a letter or card to the Circul-Air Corp., 575 E. Milwaukee, Detroit 2, Michigan.

New Motorola "Handie-Talkie" Announced

A NEW compact "handie talkie" weighing only seven pounds and providing communication in excess of two miles, has recently been announced for fall delivery by the Galvin Manufacturing Co., of Chicago, makers of Motorola radio equipment.

Designed to operate in the 25-44 mc band, transmission range between units will vary widely depending on local conditions. When operating with forestry towers or other high antennae distances in excess of 20 miles may be expected. In the Chicago area favorable results have been obtained with units three to four miles apart. The announced price is approximately $250 per unit.

PENTRATE MAKES WATER WETTER!

Pentrate is a new exclusive Alfco formula, scientifically compounded of chemical ingredients, 1% of which when added to ordinary water gives the combined solution speedy penetrating and spreading qualities much superior to water itself, and therefore more effective in fire fighting.

Just add 1 gallon of Pentrate to each 100 gallons of water in the booster tank and stir gently. The mixture immediately becomes wetter water. When applied on a stubborn, deep seated, smouldering fire, the speed with which it spreads and penetrates will surprise you. It gets to the heart of the fire in a hurry!

Pentrate is no more injurious to metals or wood than water itself. As chemically compounded by Alfco, it has even less corrosive effect than water, and *can be used* effectively with salt water or calcium chloride solutions.

Alfco Pentrate *penetrates* to the heart of the fire! Always keep enough on hand to meet emergencies. Pentrate can be used with present booster tank equipment. Available in five gallon cans.

Write for illustrated literature.

PENTRATE

AMERICAN-LAFRANCE-FOAMITE Corporation

ELMIRA-NEW YORK-U.S.A.

the ACCEPTED STANDARD in Firefighting Service

M·S·A MODEL S *All-Service* GAS MASK

U. S. BUREAU OF MINES APPROVED

THE MODEL S CANISTER — Approved for respiratory protection against toxic gases, smokes, fumes, mists and dusts encountered in emergencies.

NOTE: Mask pictured with M.S.A. Speaking Diaphragm — an optional All-Service Mask feature.

The trained fireman knows the value of modern gas mask protection—and the experienced fireman knows the outstanding quality of the M.S.A. ALL-SERVICE Gas Mask! Maintaining top standards of value and performance, this famous Mask provides *approved protection* against all smokes and gases (including carbon monoxide) under any conditions where a canister mask can be used; easy wearing comfort, well-balanced fit, wide-angled vision, speed of application . . . all the service advantages of a real firefighting safety appliance, designed and built to do a better job. *Let us arrange a demonstration for you.*

MINE SAFETY APPLIANCES CO.

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